

**CLAIMS**

1. A protein complex selected from complex (I) and comprising
- (a) at least one first protein selected from the group consisting of:
- (i) "ANDROGEN RECEPTOR" (SEQ ID No:1) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "ANDROGEN RECEPTOR" encoded by a nucleic acid that hybridizes to the "ANDROGEN RECEPTOR" nucleic acid or its complement under low stringency conditions,
  - (ii) "Actin" (SEQ ID No:2) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "Actin" encoded by a nucleic acid that hybridizes to the "Actin" nucleic acid or its complement under low stringency conditions,
  - (iii) "BAF53" (SEQ ID No:3) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "BAF53" encoded by a nucleic acid that hybridizes to the "BAF53" nucleic acid or its complement under low stringency conditions,
  - (iv) "ECP-51" (SEQ ID No:6) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "ECP-51" encoded by a nucleic acid that hybridizes to the "ECP-51" nucleic acid or its complement under low stringency conditions,
  - (v) "HDAC1" (SEQ ID No:10) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "HDAC1" encoded by a nucleic acid that hybridizes to the "HDAC1" nucleic acid or its complement under low stringency conditions,
  - (vi) "PAF400/TRRAP" (SEQ ID No:12) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "PAF400/TRRAP" encoded by a nucleic acid that hybridizes to the "PAF400/TRRAP" nucleic acid or its complement under low stringency conditions,
  - (vii) "RUVBL1/ECP-54 (Pontin)" (SEQ ID No:14) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "RUVBL1/ECP-54 (Pontin)" encoded by a nucleic acid that hybridizes to the "RUVBL1/ECP-54 (Pontin)" nucleic acid or its complement under low stringency conditions, and

(viii) "TIP60" (SEQ ID No:17) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "TIP60" encoded by a nucleic acid that hybridizes to the "TIP60" nucleic acid or its complement under low stringency conditions, and

(b) at least one second protein, which second protein is selected from the group consisting of:

(i) "C20orf20" (SEQ ID No:4) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "C20orf20" encoded by a nucleic acid that hybridizes to the "C20orf20" nucleic acid or its complement under low stringency conditions,

(ii) "DMAP1" (SEQ ID No:5) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "DMAP1" encoded by a nucleic acid that hybridizes to the "DMAP1" nucleic acid or its complement under low stringency conditions,

(iii) "EP400: E1A binding protein p400" (SEQ ID No:7) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "EP400: E1A binding protein p400" encoded by a nucleic acid that hybridizes to the "EP400: E1A binding protein p400" nucleic acid or its complement under low stringency conditions,

(iv) "EPC1" (SEQ ID No:8) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "EPC1" encoded by a nucleic acid that hybridizes to the "EPC1" nucleic acid or its complement under low stringency conditions,

(v) "GAS41 (glioma-amplified sequence-41)" (SEQ ID No:9) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "GAS41 (glioma-amplified sequence-41)" encoded by a nucleic acid that hybridizes to the "GAS41 (glioma-amplified sequence-41)" nucleic acid or its complement under low stringency conditions,

(vi) "KIAA1093 (Fragment)" (SEQ ID No:11) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "KIAA1093 (Fragment)" encoded by a nucleic acid that hybridizes to the "KIAA1093 (Fragment)" nucleic acid or its complement under low stringency conditions,

(vii) "RBM14" (SEQ ID No:13) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "RBM14" encoded by a

nucleic acid that hybridizes to the "RBM14" nucleic acid or its complement under low stringency conditions,

(viii) "SWI/SNF COMPLEX 60 KDA SUBUNIT" (SEQ ID No:15) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "SWI/SNF COMPLEX 60 KDA SUBUNIT" encoded by a nucleic acid that hybridizes to the "SWI/SNF COMPLEX 60 KDA SUBUNIT" nucleic acid or its complement under low stringency conditions,

(ix) "THR coactivating protein" (SEQ ID No:16) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "THR coactivating protein" encoded by a nucleic acid that hybridizes to the "THR coactivating protein" nucleic acid or its complement under low stringency conditions, and

(x) "YL-1" (SEQ ID No:18) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "YL-1" encoded by a nucleic acid that hybridizes to the "YL-1" nucleic acid or its complement under low stringency conditions, and a complex (II) comprising at least two of said second proteins, wherein said low stringency conditions comprise hybridization in a buffer comprising 35% formamide, 5X SSC, 50 mM Tris-HCl (pH 7.5), 5 mM EDTA, 0.02% PVP, 0.02% Ficoll, 0.2% BSA, 100 ug/ml denatured salmon sperm DNA, and 10% (wt/vol) dextran sulfate for 18-20 hours at 40 Celsius, washing in a buffer consisting of 2X SSC, 25 mM Tris-HCl (pH 7.4), 5 mM EDTA, and 0.1 % SDS for 1.5 hours at 55 Celsius, and washing in a buffer consisting of 2X SSC, 25 mM Tris-HCl (pH 7.4), 5 mM EDTA, and 0.1% SDS for 1.5 hours at 60 Celsius.

2. The protein complex according to Claim 1 wherein the first protein is the protein TIP60 (SEQ ID No. 17), or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of 'TIP60' encoded by a nucleic acid that hybridizes to the 'TIP60' under low stringency conditions.

3. The protein complex according to Claim 1 selected from complex (I) and comprising the following proteins:

(i) "ANDROGEN RECEPTOR" (SEQ ID No:1) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "ANDROGEN RECEPTOR" encoded by a nucleic acid that hybridizes to the

"ANDROGEN RECEPTOR" nucleic acid or its complement under low stringency conditions,

(ii) "Actin" (SEQ ID No:2) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "Actin" encoded by a nucleic acid that hybridizes to the "Actin" nucleic acid or its complement under low stringency conditions,

(iii) "BAF53" (SEQ ID No:3) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "BAF53" encoded by a nucleic acid that hybridizes to the "BAF53" nucleic acid or its complement under low stringency conditions,

(iv) "C20orf20" (SEQ ID No:4) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "C20orf20" encoded by a nucleic acid that hybridizes to the "C20orf20" nucleic acid or its complement under low stringency conditions,

(v) "DMAP1" (SEQ ID No:5) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "DMAP1" encoded by a nucleic acid that hybridizes to the "DMAP1" nucleic acid or its complement under low stringency conditions,

(vi) "ECP-51" (SEQ ID No:6) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "ECP-51" encoded by a nucleic acid that hybridizes to the "ECP-51" nucleic acid or its complement under low stringency conditions,

(vii) "EP400: E1A binding protein p400" (SEQ ID No:7) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "EP400: E1A binding protein p400" encoded by a nucleic acid that hybridizes to the "EP400: E1A binding protein p400" nucleic acid or its complement under low stringency conditions,

(viii) "EPC1" (SEQ ID No:8) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "EPC1" encoded by a nucleic acid that hybridizes to the "EPC1" nucleic acid or its complement under low stringency conditions,

(ix) "GAS41 (glioma-amplified sequence-41)" (SEQ ID No:9) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "GAS41 (glioma-amplified sequence-41)" encoded by a nucleic acid that

hybridizes to the "GAS41 (glioma-amplified sequence-41)" nucleic acid or its complement under low stringency conditions,

(x) "HDAC1" (SEQ ID No:10) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "HDAC1" encoded by a nucleic acid that hybridizes to the "HDAC1" nucleic acid or its complement under low stringency conditions,

(xi) "KIAA1093 (Fragment)" (SEQ ID No:11) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "KIAA1093 (Fragment)" encoded by a nucleic acid that hybridizes to the "KIAA1093 (Fragment)" nucleic acid or its complement under low stringency conditions,

(xii) "PAF400/TRRAP" (SEQ ID No:12) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "PAF400/TRRAP" encoded by a nucleic acid that hybridizes to the "PAF400/TRRAP" nucleic acid or its complement under low stringency conditions,

(xiii) "RBM14" (SEQ ID No:13) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "RBM14" encoded by a nucleic acid that hybridizes to the "RBM14" nucleic acid or its complement under low stringency conditions,

(xiv) "RUVBL1/ECP-54 (Pontin)" (SEQ ID No:14) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "RUVBL1/ECP-54 (Pontin)" encoded by a nucleic acid that hybridizes to the "RUVBL1/ECP-54 (Pontin)" nucleic acid or its complement under low stringency conditions,

(xv) "SWI/SNF COMPLEX 60 KDA SUBUNIT" (SEQ ID No:15) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "SWI/SNF COMPLEX 60 KDA SUBUNIT" encoded by a nucleic acid that hybridizes to the "SWI/SNF COMPLEX 60 KDA SUBUNIT" nucleic acid or its complement under low stringency conditions,

(xvi) "THR coactivating protein" (SEQ ID No:16) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "THR coactivating protein" encoded by a nucleic acid that hybridizes to the "THR coactivating protein" nucleic acid or its complement under low stringency conditions,

(xvii) "TIP60" (SEQ ID No:17) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "TIP60" encoded by a

nucleic acid that hybridizes to the "TIP60" nucleic acid or its complement under low stringency conditions, and/or

(xviii) "YL-1" (SEQ ID No:18) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "YL-1" encoded by a nucleic acid that hybridizes to the "YL-1" nucleic acid or its complement under low stringency conditions,

and a protein complex selected from complex (II) and comprising the following proteins:

(i) "Actin" (SEQ ID No:2) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "Actin" encoded by a nucleic acid that hybridizes to the "Actin" nucleic acid or its complement under low stringency conditions,

(ii) "BAF53" (SEQ ID No:3) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "BAF53" encoded by a nucleic acid that hybridizes to the "BAF53" nucleic acid or its complement under low stringency conditions,

(iii) "C20orf20" (SEQ ID No:4) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "C20orf20" encoded by a nucleic acid that hybridizes to the "C20orf20" nucleic acid or its complement under low stringency conditions,

(iv) "DMP1" (SEQ ID No:5) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "DMP1" encoded by a nucleic acid that hybridizes to the "DMP1" nucleic acid or its complement under low stringency conditions,

(v) "ECP-51" (SEQ ID No:6) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "ECP-51" encoded by a nucleic acid that hybridizes to the "ECP-51" nucleic acid or its complement under low stringency conditions,

(vi) "EP400: E1A binding protein p400" (SEQ ID No:7) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "EP400: E1A binding protein p400" encoded by a nucleic acid that hybridizes to the "EP400: E1A binding protein p400" nucleic acid or its complement under low stringency conditions,

(vii) "EPC1" (SEQ ID No:8) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "EPC1" encoded by a

nucleic acid that hybridizes to the "EPC1" nucleic acid or its complement under low stringency conditions,

(viii) "GAS41 (glioma-amplified sequence-41)" (SEQ ID No:9) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "GAS41 (glioma-amplified sequence-41)" encoded by a nucleic acid that hybridizes to the "GAS41 (glioma-amplified sequence-41)" nucleic acid or its complement under low stringency conditions,

(ix) "KIAA1093 (Fragment)" (SEQ ID No:11) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "KIAA1093 (Fragment)" encoded by a nucleic acid that hybridizes to the "KIAA1093 (Fragment)" nucleic acid or its complement under low stringency conditions,

(x) "PAF400/TRRAP" (SEQ ID No:12) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "PAF400/TRRAP" encoded by a nucleic acid that hybridizes to the "PAF400/TRRAP" nucleic acid or its complement under low stringency conditions,

(xi) "RBM14" (SEQ ID No:13) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "RBM14" encoded by a nucleic acid that hybridizes to the "RBM14" nucleic acid or its complement under low stringency conditions,

(xii) "RUVBL1/ECP-54 (Pontin)" (SEQ ID No:14) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "RUVBL1/ECP-54 (Pontin)" encoded by a nucleic acid that hybridizes to the "RUVBL1/ECP-54 (Pontin)" nucleic acid or its complement under low stringency conditions,

(xiii) "SWI/SNF COMPLEX 60 KDA SUBUNIT" (SEQ ID No:15) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "SWI/SNF COMPLEX 60 KDA SUBUNIT" encoded by a nucleic acid that hybridizes to the "SWI/SNF COMPLEX 60 KDA SUBUNIT" nucleic acid or its complement under low stringency conditions,

(xiv) "THR coactivating protein" (SEQ ID No:16) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "THR coactivating protein" encoded by a nucleic acid that hybridizes to the "THR coactivating protein" nucleic acid or its complement under low stringency conditions,

(xv) "TIP60" (SEQ ID No:17) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "TIP60" encoded by a nucleic acid that hybridizes to the "TIP60" nucleic acid or its complement under low stringency conditions, and/or

(xvi) "YL-1" (SEQ ID No:18) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "YL-1" encoded by a nucleic acid that hybridizes to the "YL-1" nucleic acid or its complement under low stringency conditions,

and a protein complex selected from complex (III) and comprising the following proteins:

(i) "ANDROGEN RECEPTOR" (SEQ ID No:1) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "ANDROGEN RECEPTOR" encoded by a nucleic acid that hybridizes to the "ANDROGEN RECEPTOR" nucleic acid or its complement under low stringency conditions,

(ii) "Actin" (SEQ ID No:2) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "Actin" encoded by a nucleic acid that hybridizes to the "Actin" nucleic acid or its complement under low stringency conditions,

(iii) "BAF53" (SEQ ID No:3) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "BAF53" encoded by a nucleic acid that hybridizes to the "BAF53" nucleic acid or its complement under low stringency conditions,

(iv) "DMAP1" (SEQ ID No:5) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "DMAP1" encoded by a nucleic acid that hybridizes to the "DMAP1" nucleic acid or its complement under low stringency conditions,

(v) "ECP-51" (SEQ ID No:6) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "ECP-51" encoded by a nucleic acid that hybridizes to the "ECP-51" nucleic acid or its complement under low stringency conditions,

(vi) "EP400: E1A binding protein p400" (SEQ ID No:7) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "EP400: E1A binding protein p400" encoded by a nucleic acid that hybridizes to the



"EP400: E1A binding protein p400" nucleic acid or its complement under low stringency conditions,

(vii) "HDAC1" (SEQ ID No:10) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "HDAC1" encoded by a nucleic acid that hybridizes to the "HDAC1" nucleic acid or its complement under low stringency conditions,

(viii) "PAF400/TRRAP" (SEQ ID No:12) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "PAF400/TRRAP" encoded by a nucleic acid that hybridizes to the "PAF400/TRRAP" nucleic acid or its complement under low stringency conditions,

(ix) "RUVBL1/ECP-54 (Pontin)" (SEQ ID No:14) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "RUVBL1/ECP-54 (Pontin)" encoded by a nucleic acid that hybridizes to the "RUVBL1/ECP-54 (Pontin)" nucleic acid or its complement under low stringency conditions,

(x) "THR coactivating protein" (SEQ ID No:16) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "THR coactivating protein" encoded by a nucleic acid that hybridizes to the "THR coactivating protein" nucleic acid or its complement under low stringency conditions,

(xi) "TIP60" (SEQ ID No:17) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "TIP60" encoded by a nucleic acid that hybridizes to the "TIP60" nucleic acid or its complement under low stringency conditions, and/or

(xii) "YL-1" (SEQ ID No:18) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "YL-1" encoded by a nucleic acid that hybridizes to the "YL-1" nucleic acid or its complement under low stringency conditions,

and a protein complex selected from complex (IV) and comprising the following proteins:

(i) "BAF53" (SEQ ID No:3) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "BAF53" encoded by a nucleic acid that hybridizes to the "BAF53" nucleic acid or its complement under low stringency conditions,

(ii) "DMP1" (SEQ ID No:5) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "DMP1" encoded by a

nucleic acid that hybridizes to the "DMAP1" nucleic acid or its complement under low stringency conditions,

(iii) "ECP-51" (SEQ ID No:6) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "ECP-51" encoded by a nucleic acid that hybridizes to the "ECP-51" nucleic acid or its complement under low stringency conditions,

(iv) "EP400: E1A binding protein p400" (SEQ ID No:7) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "EP400: E1A binding protein p400" encoded by a nucleic acid that hybridizes to the "EP400: E1A binding protein p400" nucleic acid or its complement under low stringency conditions,

(v) "PAF400/TRRAP" (SEQ ID No:12) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "PAF400/TRRAP" encoded by a nucleic acid that hybridizes to the "PAF400/TRRAP" nucleic acid or its complement under low stringency conditions,

(vi) "RUVBL1/ECP-54 (Pontin)" (SEQ ID No:14) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "RUVBL1/ECP-54 (Pontin)" encoded by a nucleic acid that hybridizes to the "RUVBL1/ECP-54 (Pontin)" nucleic acid or its complement under low stringency conditions,

(vii) "THR coactivating protein" (SEQ ID No:16) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "THR coactivating protein" encoded by a nucleic acid that hybridizes to the "THR coactivating protein" nucleic acid or its complement under low stringency conditions,

(viii) "TIP60" (SEQ ID No:17) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "TIP60" encoded by a nucleic acid that hybridizes to the "TIP60" nucleic acid or its complement under low stringency conditions, and/or

(ix) "YL-1" (SEQ ID No:18) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "YL-1" encoded by a nucleic acid that hybridizes to the "YL-1" nucleic acid or its complement under low stringency conditions,

and a protein complex selected from complex (V) and comprising the following proteins:

- (i) "BAF53" (SEQ ID No:3) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "BAF53" encoded by a nucleic acid that hybridizes to the "BAF53" nucleic acid or its complement under low stringency conditions,
- (ii) "Actin" (SEQ ID No:2) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "Actin" encoded by a nucleic acid that hybridizes to the "Actin" nucleic acid or its complement under low stringency conditions,
- (iii) "DMAP1" (SEQ ID No:5) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "DMAP1" encoded by a nucleic acid that hybridizes to the "DMAP1" nucleic acid or its complement under low stringency conditions,
- (iv) "PAF400/TRRAP" (SEQ ID No:12) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "PAF400/TRRAP" encoded by a nucleic acid that hybridizes to the "PAF400/TRRAP" nucleic acid or its complement under low stringency conditions,
- (v) "ECP-51" (SEQ ID No:6) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "ECP-51" encoded by a nucleic acid that hybridizes to the "ECP-51" nucleic acid or its complement under low stringency conditions,
- (vi) "EP400: E1A binding protein p400" (SEQ ID No:7) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "EP400: E1A binding protein p400" encoded by a nucleic acid that hybridizes to the "EP400: E1A binding protein p400" nucleic acid or its complement under low stringency conditions,
- (vii) "PAF400/TRRAP" (SEQ ID No:12) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "PAF400/TRRAP" encoded by a nucleic acid that hybridizes to the "PAF400/TRRAP" nucleic acid or its complement under low stringency conditions,
- (viii) "RUVBL1/ECP-54 (Pontin)" (SEQ ID No:14) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "RUVBL1/ECP-54 (Pontin)" encoded by a nucleic acid that hybridizes to the "RUVBL1/ECP-54 (Pontin)" nucleic acid or its complement under low stringency conditions,

- (ix) "TIP60" (SEQ ID No:17) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "TIP60" encoded by a nucleic acid that hybridizes to the "TIP60" nucleic acid or its complement under low stringency conditions, and/or
- (x) "YL-1" (SEQ ID No:18) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "YL-1" encoded by a nucleic acid that hybridizes to the "YL-1" nucleic acid or its complement under low stringency conditions,

4. The protein complex according to Claim 1 comprising all but 1 - 9 of the following proteins:

- (i) "ANDROGEN RECEPTOR" (SEQ ID No:1) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "ANDROGEN RECEPTOR" encoded by a nucleic acid that hybridizes to the "ANDROGEN RECEPTOR" nucleic acid or its complement under low stringency conditions,
- (ii) "Actin" (SEQ ID No:2) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "Actin" encoded by a nucleic acid that hybridizes to the "Actin" nucleic acid or its complement under low stringency conditions,
- (iii) "BAF53" (SEQ ID No:3) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "BAF53" encoded by a nucleic acid that hybridizes to the "BAF53" nucleic acid or its complement under low stringency conditions,
- (iv) "C20orf20" (SEQ ID No:4) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "C20orf20" encoded by a nucleic acid that hybridizes to the "C20orf20" nucleic acid or its complement under low stringency conditions,
- (v) "DMAP1" (SEQ ID No:5) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "DMAP1" encoded by a nucleic acid that hybridizes to the "DMAP1" nucleic acid or its complement under low stringency conditions,

- (vi) "ECP-51" (SEQ ID No:6) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "ECP-51" encoded by a nucleic acid that hybridizes to the "ECP-51" nucleic acid or its complement under low stringency conditions,
- (vii) "EP400: E1A binding protein p400" (SEQ ID No:7) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "EP400: E1A binding protein p400" encoded by a nucleic acid that hybridizes to the "EP400: E1A binding protein p400" nucleic acid or its complement under low stringency conditions,
- (viii) "EPC1" (SEQ ID No:8) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "EPC1" encoded by a nucleic acid that hybridizes to the "EPC1" nucleic acid or its complement under low stringency conditions,
- (ix) "GAS41 (glioma-amplified sequence-41)" (SEQ ID No:9) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "GAS41 (glioma-amplified sequence-41)" encoded by a nucleic acid that hybridizes to the "GAS41 (glioma-amplified sequence-41)" nucleic acid or its complement under low stringency conditions,
- (x) "HDAC1" (SEQ ID No:10) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "HDAC1" encoded by a nucleic acid that hybridizes to the "HDAC1" nucleic acid or its complement under low stringency conditions,
- (xi) "KIAA1093 (Fragment)" (SEQ ID No:11) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "KIAA1093 (Fragment)" encoded by a nucleic acid that hybridizes to the "KIAA1093 (Fragment)" nucleic acid or its complement under low stringency conditions,
- (xii) "PAF400/TRRAP" (SEQ ID No:12) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "PAF400/TRRAP" encoded by a nucleic acid that hybridizes to the "PAF400/TRRAP" nucleic acid or its complement under low stringency conditions,
- (xiii) "RBM14" (SEQ ID No:13) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "RBM14" encoded by a nucleic acid that hybridizes to the "RBM14" nucleic acid or its complement under low stringency conditions,

- (xiv) "RUVBL1/ECP-54 (Pontin)" (SEQ ID No:14) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "RUVBL1/ECP-54 (Pontin)" encoded by a nucleic acid that hybridizes to the "RUVBL1/ECP-54 (Pontin)" nucleic acid or its complement under low stringency conditions,
- (xv) "SWI/SNF COMPLEX 60 KDA SUBUNIT" (SEQ ID No:15) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "SWI/SNF COMPLEX 60 KDA SUBUNIT" encoded by a nucleic acid that hybridizes to the "SWI/SNF COMPLEX 60 KDA SUBUNIT" nucleic acid or its complement under low stringency conditions,
- (xvi) "THR coactivating protein" (SEQ ID No:16) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "THR coactivating protein" encoded by a nucleic acid that hybridizes to the "THR coactivating protein" nucleic acid or its complement under low stringency conditions,
- (xvii) "TIP60" (SEQ ID No:17) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "TIP60" encoded by a nucleic acid that hybridizes to the "TIP60" nucleic acid or its complement under low stringency conditions,
- (xviii) "YL-1" (SEQ ID No:18) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "YL-1" encoded by a nucleic acid that hybridizes to the "YL-1" nucleic acid or its complement under low stringency conditions.

5. The complex of any of Claim 1 - 4 comprising a functionally active derivative of said first protein and/or a functionally active derivative of said second protein, wherein the functionally active derivative is a fusion protein comprising said first protein or said second protein fused to an amino acid sequence different from the first protein or second protein, respectively.

6. The complex of Claim 5 wherein the functionally active derivative is a fusion protein comprising said first protein or said second protein fused to an affinity tag or label.

7. The complex of any of Claim 1 - 4 comprising a fragment of said first protein and/or a fragment of said second protein, which fragment binds to another protein component of said complex.
8. The complex of any of Claim 1 - 7 that is involved in the transcriptional activity in vivo or Apoptotic activity.
9. A process for preparing a complex of any of Claim 1 - 8 and optionally the components thereof comprising the following steps: expressing a protein (bait) of the complex, preferably a tagged protein, in a target cell, isolating the protein complex which is attached to the bait protein, and optionally dissociating the protein complex and isolating the individual complex members.
10. The process according to Claim 9 wherein the tagged protein comprises two different tags which allow two separate affinity purification steps.
11. The process according to any of Claim 9 - 10 wherein the two tags are separated by a cleavage site for a protease.
12. Component of the TIP60 transcriptional activator complex obtainable by a process according to any of Claim 9 - 11.
13. Protein of the TIP60 transcriptional activator complex selected from
  - (i) "C20orf20" (SEQ ID No:4) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "C20orf20" encoded by a nucleic acid that hybridizes to the "C20orf20" nucleic acid or its complement under low stringency conditions, and
  - (ii) "KIAA1093 (Fragment)" (SEQ ID No:11) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "KIAA1093 (Fragment)" encoded by a nucleic acid that hybridizes to the "KIAA1093 (Fragment)" nucleic acid or its complement under low stringency conditions, wherein said low stringency conditions comprise hybridization in a buffer comprising 35% formamide, 5X SSC, 50 mM Tris-HCl (pH 7.5), 5 mM EDTA, 0.02% PVP, 0.02% Ficoll, 0.2% BSA, 100

ug/ml denatured salmon sperm DNA, and 10% (wt/vol) dextran sulfate for 18-20 hours at 40 Celsius, washing in a buffer consisting of 2X SSC, 25 mM Tris-HCl (pH 7.4), 5 mM EDTA, and 0.1 % SDS for 1.5 hours at 55 Celsius, and washing in a buffer consisting of 2X SSC, 25 mM Tris-HCl (pH 7.4), 5 mM EDTA, and 0.1% SDS for 1.5 hours at 60 Celsius.

14. Nucleic acid encoding a protein according to Claim 13.

15. Construct, preferably a vector construct, comprising (a) a nucleic acid according to Claim 14 and at least one further nucleic acid which is normally not associated with said nucleic acid, or

(b) at least two separate nucleic acid sequences each encoding a different protein, or a functionally active fragment or a functionally active derivative of at least one of said proteins, or functionally active fragments or functionally active derivative thereof being selected from the first group of proteins according to Claim 1 (a) and at least one of said proteins, or functionally active fragments or functionally active derivative thereof being selected from the second group of proteins according to Claim 1 (b).

16. Host cell, containing a vector comprising at least one of the nucleic acid of Claim 14 and/or a construct of Claim 15 or containing several vectors each comprising at least the nucleic acid sequence encoding at least one of the proteins, or functionally active fragments or functionally active derivatives thereof selected from the first group of proteins according to Claim 1 (a) and the proteins, or functionally active fragments or functionally active derivatives thereof selected from the second group of proteins according to Claim 1 (b).

17. An antibody or a fragment of said antibody containing the binding domain thereof, selected from an antibody or fragment thereof, which binds the complex of any of Claim 1 - 8 and which does not bind any of the proteins of said complex when uncomplexed and an antibody or a fragment of said antibody which binds to any of the proteins according to Claim 13.



18. A kit comprising in one or more container the complex of any of Claim 1 - 8 and/or the proteins of Claim 13 optionally together with an antibody according to Claim 17 and/or further components such as reagents and working instructions.

19. The kit according to Claim 18 for processing a substrate of said complex.

20. The kit according to Claim 18 for the diagnosis or prognosis of a disease or a disease risk, preferentially for a disease or disorder such as neurodegenerative diseases such as Alzheimer's diseasecancer such as prostate cancer and breast cancer..

21. Array, in which at least a complex according to any of Claim 1 - 8 and/or at least one protein according to Claim 14 and/or at least one antibody according to Claim 17 is attached to a solid carrier.

22. A process for processing a physiological substrate of the complex comprising the step of bringing into contact a complex to any of Claim 1 - 8 with said substrate, such that said substrate is processed.

23. A pharmaceutical composition comprising the protein complex of any of Claim 1 - 8 and/or any of the following the proteins:

- (i) "C20orf20" (SEQ ID No:4) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "C20orf20" encoded by a nucleic acid that hybridizes to the "C20orf20" nucleic acid or its complement under low stringency conditions, and/or
- (ii) "KIAA1093 (Fragment)" (SEQ ID No:11) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "KIAA1093 (Fragment)" encoded by a nucleic acid that hybridizes to the "KIAA1093 (Fragment)" nucleic acid or its complement under low stringency conditions, and a pharmaceutical acceptable carrier.

24. A pharmaceutical composition according to Claim 23 for the treatment of diseases and disorders such as neurodegenerative diseases such as Alzheimer's diseasecancer such as prostate cancer and breast cancer..

25. A method for screening for a molecule that binds to the complex of anyone of Claim 1 - 8 and/or any of the following the proteins:

(i) "C20orf20" (SEQ ID No:4) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "C20orf20" encoded by a nucleic acid that hybridizes to the "C20orf20" nucleic acid or its complement under low stringency conditions, and/or

(ii) "KIAA1093 (Fragment)" (SEQ ID No:11) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "KIAA1093 (Fragment)" encoded by a nucleic acid that hybridizes to the "KIAA1093 (Fragment)" nucleic acid or its complement under low stringency conditions, comprising the steps of

(a) exposing said complex, or a cell or organism containing same to one or more candidate molecules; and

(b) determinig whether said candidate molecule is bound to the complex or protein.

26. A method for screening for a molecule that modulates directly or indirectly the function, activity, composition or formation of the complex of any one of Claim 1 - 8 comprising the steps of (a) exposing said complex, or a cell or organism containing TIP60 transcriptional activator complex to one or more candidate molecules; and

(b) determining the amount of activity of protein components of, and/or intracellular localization of, said complex and/or the transcription level of a gene dependent on the complex and/or the abundance and/or activity of a protein or protein complex dependent on the function of the complex and/or product of a gene dependent on the complex in the presence of the one or more candidate molecules, wherein a change in said amount, activity, protein components or intracellular localization relative to said amount, activity, protein components and/or intracellular localization and/or a change in the transcription level of a gene dependent on the complex and/or the abundance and/or activity of a protein or protein complex dependent on the function of the complex and/or product of a gene dependent on the complex in the absence of said candidate molecules indicates that the molecule modulates function, activity or composition of said complex.

27. The method of Claim 26, wherein the amount of said complex is determined.

28. The method of Claim 26, wherein the activity of said complex is determined.

29. The method of Claim 28, wherein said determining step comprises isolating from the cell or organism said complex to produce said isolated complex and contacting said isolated complex in the presence or absence of a candidate molecule with a substrate of said complex and determining the processing of said substrate is modified in the presence of said candidate molecule.

30. The method of Claim 26, wherein the amount of the individual protein components of said complex are determined.

31. The method of Claim 30, wherein said determining step comprises determining whether

(i) "ANDROGEN RECEPTOR" (SEQ ID No:1) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "ANDROGEN RECEPTOR" encoded by a nucleic acid that hybridizes to the "ANDROGEN RECEPTOR" nucleic acid or its complement under low stringency conditions, and/or

(ii) "Actin" (SEQ ID No:2) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "Actin" encoded by a nucleic acid that hybridizes to the "Actin" nucleic acid or its complement under low stringency conditions, and/or

(iii) "BAF53" (SEQ ID No:3) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "BAF53" encoded by a nucleic acid that hybridizes to the "BAF53" nucleic acid or its complement under low stringency conditions, and/or

(iv) "C20orf20" (SEQ ID No:4) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "C20orf20" encoded by a nucleic acid that hybridizes to the "C20orf20" nucleic acid or its complement under low stringency conditions, and/or

(v) "DMAP1" (SEQ ID No:5) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "DMAP1" encoded by a

nucleic acid that hybridizes to the "DMAP1" nucleic acid or its complement under low stringency conditions, and/or

(vi) "ECP-51" (SEQ ID No:6) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "ECP-51" encoded by a nucleic acid that hybridizes to the "ECP-51" nucleic acid or its complement under low stringency conditions, and/or

(vii) "EP400: E1A binding protein p400" (SEQ ID No:7) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "EP400: E1A binding protein p400" encoded by a nucleic acid that hybridizes to the "EP400: E1A binding protein p400" nucleic acid or its complement under low stringency conditions, and/or

(viii) "EPC1" (SEQ ID No:8) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "EPC1" encoded by a nucleic acid that hybridizes to the "EPC1" nucleic acid or its complement under low stringency conditions, and/or

(ix) "GAS41 (glioma-amplified sequence-41)" (SEQ ID No:9) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "GAS41 (glioma-amplified sequence-41)" encoded by a nucleic acid that hybridizes to the "GAS41 (glioma-amplified sequence-41)" nucleic acid or its complement under low stringency conditions, and/or

(x) "HDAC1" (SEQ ID No:10) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "HDAC1" encoded by a nucleic acid that hybridizes to the "HDAC1" nucleic acid or its complement under low stringency conditions, and/or

(xi) "KIAA1093 (Fragment)" (SEQ ID No:11) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "KIAA1093 (Fragment)" encoded by a nucleic acid that hybridizes to the "KIAA1093 (Fragment)" nucleic acid or its complement under low stringency conditions, and/or

(xii) "PAF400/TRRAP" (SEQ ID No:12) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "PAF400/TRRAP" encoded by a nucleic acid that hybridizes to the "PAF400/TRRAP" nucleic acid or its complement under low stringency conditions, and/or

(xiii) "RBM14" (SEQ ID No:13) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "RBM14" encoded by a

nucleic acid that hybridizes to the "RBM14" nucleic acid or its complement under low stringency conditions, and/or

(xiv) "RUVBL1/ECP-54 (Pontin)" (SEQ ID No:14) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "RUVBL1/ECP-54 (Pontin)" encoded by a nucleic acid that hybridizes to the "RUVBL1/ECP-54 (Pontin)" nucleic acid or its complement under low stringency conditions, and/or

(xv) "SWI/SNF COMPLEX 60 KDA SUBUNIT" (SEQ ID No:15) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "SWI/SNF COMPLEX 60 KDA SUBUNIT" encoded by a nucleic acid that hybridizes to the "SWI/SNF COMPLEX 60 KDA SUBUNIT" nucleic acid or its complement under low stringency conditions, and/or

(xvi) "THR coactivating protein" (SEQ ID No:16) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "THR coactivating protein" encoded by a nucleic acid that hybridizes to the "THR coactivating protein" nucleic acid or its complement under low stringency conditions, and/or

(xvii) "TIP60" (SEQ ID No:17) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "TIP60" encoded by a nucleic acid that hybridizes to the "TIP60" nucleic acid or its complement under low stringency conditions, and/or

(xviii) "YL-1" (SEQ ID No:18) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "YL-1" encoded by a nucleic acid that hybridizes to the "YL-1" nucleic acid or its complement under low stringency conditions, is present in the complex.

32. The method of any of Claim 26 - 31, wherein said method is a method of screening for a drug for treatment or prevention of a disease or disorder such as neurodegenerative diseases such as Alzheimer's disease, cancer such as prostate cancer and breast cancer..

33. Use of a molecule that modulates the amount of, activity of, or the protein components of the complex of any one of Claim 1 - 8 for the manufacture of a medicament for the treatment or prevention of a disease or disorder such as

neurodegenerative diseases such as Alzheimer's diseasecancer such as prostate cancer and breast cancer..

34. A method for the production of a pharmaceutical composition comprising carrying out the method of any of Claim 1 - 8 to identify a molecule that modulates the function, activity, composition or formation of said complex, and further comprising mixing the identified molecule with a pharmaceutically acceptable carrier.

35. A method for diagnosing or screening for the presence of a disease or disorder or a predisposition for developing a disease or disorder in a subject, which disease or disorder is characterized by an aberrant amount of, activity of, or component composition of, or intracellular localization of the complex of any one of the Claim 1 - 8, comprising determining the amount of, activity of, protein components of, and/or intracellular localization of, said complex and/or the transcription level of a gene dependent on the complex and/or the abundance and/or activity of a protein or protein complex dependent on the function of the complex and/or product of a gene dependent on the complex in a comparative sample derived from a subject, wherein a difference in said amount, activity, or protein components of, said complex in an analogous sample from a subject not having the disease or disorder or predisposition indicates the presence in the subject of the disease or disorder or predisposition in the subject.

36. The method of Claim 35, wherein the amount of said complex is determined.

37. The method of Claim 35, wherein the activity of said complex is determined.

38. The method of Claim 37, wherein said determining step comprises isolating from the subject said complex to produce said isolated complex and contacting said isolated complex in the presence or absence of a candidate molecule with a substrate of said complex and determining whether said substrate is processed in the absence of the candidate molecule and whether the processing of said substrate is modified in the presence of said candidate molecule.

39. The method of Claim 35, wherein the amount of the individual protein components of said complex is determined.

40. The method of Claim 39, wherein said determining step comprises determining whether

- (i) "ANDROGEN RECEPTOR" (SEQ ID No:1) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "ANDROGEN RECEPTOR" encoded by a nucleic acid that hybridizes to the "ANDROGEN RECEPTOR" nucleic acid or its complement under low stringency conditions, and/or
- (ii) "Actin" (SEQ ID No:2) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "Actin" encoded by a nucleic acid that hybridizes to the "Actin" nucleic acid or its complement under low stringency conditions, and/or
- (iii) "BAF53" (SEQ ID No:3) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "BAF53" encoded by a nucleic acid that hybridizes to the "BAF53" nucleic acid or its complement under low stringency conditions, and/or
- (iv) "C20orf20" (SEQ ID No:4) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "C20orf20" encoded by a nucleic acid that hybridizes to the "C20orf20" nucleic acid or its complement under low stringency conditions, and/or
- (v) "DMAP1" (SEQ ID No:5) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "DMAP1" encoded by a nucleic acid that hybridizes to the "DMAP1" nucleic acid or its complement under low stringency conditions, and/or
- (vi) "ECP-51" (SEQ ID No:6) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "ECP-51" encoded by a nucleic acid that hybridizes to the "ECP-51" nucleic acid or its complement under low stringency conditions, and/or
- (vii) "EP400: E1A binding protein p400" (SEQ ID No:7) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "EP400: E1A binding protein p400" encoded by a nucleic acid that hybridizes to the "EP400: E1A binding protein p400" nucleic acid or its complement under low stringency conditions, and/or

- (viii) "EPC1" (SEQ ID No:8) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "EPC1" encoded by a nucleic acid that hybridizes to the "EPC1" nucleic acid or its complement under low stringency conditions, and/or
- (ix) "GAS41 (glioma-amplified sequence-41)" (SEQ ID No:9) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "GAS41 (glioma-amplified sequence-41)" encoded by a nucleic acid that hybridizes to the "GAS41 (glioma-amplified sequence-41)" nucleic acid or its complement under low stringency conditions, and/or
- (x) "HDAC1" (SEQ ID No:10) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "HDAC1" encoded by a nucleic acid that hybridizes to the "HDAC1" nucleic acid or its complement under low stringency conditions, and/or
- (xi) "KIAA1093 (Fragment)" (SEQ ID No:11) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "KIAA1093 (Fragment)" encoded by a nucleic acid that hybridizes to the "KIAA1093 (Fragment)" nucleic acid or its complement under low stringency conditions, and/or
- (xii) "PAF400/TRRAP" (SEQ ID No:12) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "PAF400/TRRAP" encoded by a nucleic acid that hybridizes to the "PAF400/TRRAP" nucleic acid or its complement under low stringency conditions, and/or
- (xiii) "RBM14" (SEQ ID No:13) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "RBM14" encoded by a nucleic acid that hybridizes to the "RBM14" nucleic acid or its complement under low stringency conditions, and/or
- (xiv) "RUVBL1/ECP-54 (Pontin)" (SEQ ID No:14) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "RUVBL1/ECP-54 (Pontin)" encoded by a nucleic acid that hybridizes to the "RUVBL1/ECP-54 (Pontin)" nucleic acid or its complement under low stringency conditions, and/or
- (xv) "SWI/SNF COMPLEX 60 KDA SUBUNIT" (SEQ ID No:15) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "SWI/SNF COMPLEX 60 KDA SUBUNIT" encoded by a nucleic acid that



hybridizes to the "SWI/SNF COMPLEX 60 KDA SUBUNIT" nucleic acid or its complement under low stringency conditions, and/or

(xvi) "THR coactivating protein" (SEQ ID No:16) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "THR coactivating protein" encoded by a nucleic acid that hybridizes to the "THR coactivating protein" nucleic acid or its complement under low stringency conditions, and/or

(xvii) "TIP60" (SEQ ID No:17) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "TIP60" encoded by a nucleic acid that hybridizes to the "TIP60" nucleic acid or its complement under low stringency conditions, and/or

(xviii) "YL-1" (SEQ ID No:18) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "YL-1" encoded by a nucleic acid that hybridizes to the "YL-1" nucleic acid or its complement under low stringency conditions, is present in the complex.

41. The complex of any one of Claim 1 - 8, or proteins of Claim 13 or the antibody or fragment of Claim 17, for use in a method of diagnosing a disease or disorder such as neurodegenerative diseases such as Alzheimer's disease cancer such as prostate cancer and breast cancer..

42. A method for treating or preventing a disease or disorder characterized by an aberrant amount of, activity or component composition of or intracellular localization of, the complex of anyone of Claim 1 - 8, comprising administering to a subject in need of such treatment or prevention a therapeutically effective amount of one or more molecules that modulate the amount of, transcriptional activity in vivo or Apoptotic activity, or protein components of, said complex.

43. The method according to Claim 42, wherein said disease or disorder involves decreased levels of the amount or activity of said complex.

44. The method according to Claim 42, wherein said disease or disorder involves increased levels of the amount or activity of said complex.

45. Complex of any of Claim 1 - 8 and/or protein selected from the following proteins

(i) "ANDROGEN RECEPTOR" (SEQ ID No:1) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "ANDROGEN RECEPTOR" encoded by a nucleic acid that hybridizes to the "ANDROGEN RECEPTOR" nucleic acid or its complement under low stringency conditions,

(ii) "Actin" (SEQ ID No:2) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "Actin" encoded by a nucleic acid that hybridizes to the "Actin" nucleic acid or its complement under low stringency conditions,

(iii) "BAF53" (SEQ ID No:3) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "BAF53" encoded by a nucleic acid that hybridizes to the "BAF53" nucleic acid or its complement under low stringency conditions,

(iv) "C20orf20" (SEQ ID No:4) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "C20orf20" encoded by a nucleic acid that hybridizes to the "C20orf20" nucleic acid or its complement under low stringency conditions,

(v) "DMAP1" (SEQ ID No:5) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "DMAP1" encoded by a nucleic acid that hybridizes to the "DMAP1" nucleic acid or its complement under low stringency conditions,

(vi) "ECP-51" (SEQ ID No:6) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "ECP-51" encoded by a nucleic acid that hybridizes to the "ECP-51" nucleic acid or its complement under low stringency conditions,

(vii) "EP400: E1A binding protein p400" (SEQ ID No:7) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "EP400: E1A binding protein p400" encoded by a nucleic acid that hybridizes to the "EP400: E1A binding protein p400" nucleic acid or its complement under low stringency conditions,

(viii) "EPC1" (SEQ ID No:8) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "EPC1" encoded by a

nucleic acid that hybridizes to the "EPC1" nucleic acid or its complement under low stringency conditions,

(ix) "GAS41 (glioma-amplified sequence-41)" (SEQ ID No:9) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "GAS41 (glioma-amplified sequence-41)" encoded by a nucleic acid that hybridizes to the "GAS41 (glioma-amplified sequence-41)" nucleic acid or its complement under low stringency conditions,

(x) "HDAC1" (SEQ ID No:10) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "HDAC1" encoded by a nucleic acid that hybridizes to the "HDAC1" nucleic acid or its complement under low stringency conditions,

(xi) "KIAA1093 (Fragment)" (SEQ ID No:11) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "KIAA1093 (Fragment)" encoded by a nucleic acid that hybridizes to the "KIAA1093 (Fragment)" nucleic acid or its complement under low stringency conditions,

(xii) "PAF400/TRRAP" (SEQ ID No:12) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "PAF400/TRRAP" encoded by a nucleic acid that hybridizes to the "PAF400/TRRAP" nucleic acid or its complement under low stringency conditions,

(xiii) "RBM14" (SEQ ID No:13) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "RBM14" encoded by a nucleic acid that hybridizes to the "RBM14" nucleic acid or its complement under low stringency conditions,

(xiv) "RUVBL1/ECP-54 (Pontin)" (SEQ ID No:14) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "RUVBL1/ECP-54 (Pontin)" encoded by a nucleic acid that hybridizes to the "RUVBL1/ECP-54 (Pontin)" nucleic acid or its complement under low stringency conditions,

(xv) "SWI/SNF COMPLEX 60 KDA SUBUNIT" (SEQ ID No:15) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "SWI/SNF COMPLEX 60 KDA SUBUNIT" encoded by a nucleic acid that hybridizes to the "SWI/SNF COMPLEX 60 KDA SUBUNIT" nucleic acid or its complement under low stringency conditions,

(xvi) "THR coactivating protein" (SEQ ID No:16) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "THR coactivating protein" encoded by a nucleic acid that hybridizes to the "THR coactivating protein" nucleic acid or its complement under low stringency conditions,

(xvii) "TIP60" (SEQ ID No:17) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "TIP60" encoded by a nucleic acid that hybridizes to the "TIP60" nucleic acid or its complement under low stringency conditions, and/or

(xviii) "YL-1" (SEQ ID No:18) or a functionally active derivative thereof, or a functionally active fragment thereof, or a homolog thereof, or a variant of "YL-1" encoded by a nucleic acid that hybridizes to the "YL-1" nucleic acid or its complement under low stringency conditions, as a target for an active agent of a pharmaceutical, preferably a drug target in the treatment or prevention of a disease or disorder such as neurodegenerative diseases such as Alzheimer's disease cancer such as prostate cancer and breast cancer..